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Abstract

The present invention discloses methods for making micron/nano sized (2nm to 5 μm) particles of various inorganic materials such as minerals/oxides/sulphides/metals/ceramics using aqueous foam. Aqueous foams of various anionic, cationic, non-ionic surfactant, casein proteins and their mixtures has been used for the preparation of suitable inorganic materials growth. Large scale synthesis of advanced inorganic materials such as various ceramics, minerals, oxides, sulphides and metal micron/nanoparticles of controlled shape and size can be obtained by mixing appropriate metal ions with the suitable cationic/anionic/non-ionic/casein protein/their mixtures, which is bubbled by air to form aqueous foams and thereafter their reduction/reaction to form the final product.